

## **3.8 SURFACE WATER HYDROLOGY AND WATER QUALITY**

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The following discussion is largely based on the hydrology technical report prepared by Schaaf & Wheeler in May 2005. The hydrology report is contained in Appendix H of this EIR.

### **3.8.1 ENVIRONMENTAL SETTING**

#### **DRAINAGE**

##### **On-site Drainage**

The project site is located within the Coyote Creek watershed which encompasses approximately 420 square miles, approximately half of which is located above Anderson Reservoir to the east of the project site. Coyote Creek is located about 1,500 feet north of the site at its nearest point and flows in a general northwesterly direction to San Francisco Bay about 25 miles downstream.

The project site contains no natural drainage channels or human-made drainage facilities. Under current conditions, stormwater runoff from the site is minimal due to the flat topography and the well-drained and permeable nature of the site soils. Thus precipitation from shorter duration and more frequent storms infiltrates into the ground without generating appreciable runoff. Less frequent storms of longer duration generate enough precipitation to saturate the soils and produce on-site ponding and excess stormwater runoff. All surface water leaving the site does so in the form of overland flow, which travels with the topography in a general north and northwest direction.

##### **Cochrane Channel**

The Cochrane Channel is a concrete-lined trapezoidal drainage channel, which commences adjacent to the southwest corner of the project site and runs along the westerly site boundary (adjacent to the freeway right-of-way) and continues for about one mile northwesterly to Coyote Creek. The channel is owned and operated by the Santa Clara Valley Water District (hereinafter "SCVWD") and was constructed in the early 1980s as part of the U.S. Highway 101 extension project, which completed the freeway link between Morgan Hill and San José. The channel was constructed to intercept surface runoff from the east as well as drainage from the freeway right-of-way via multiple Caltrans storm drainage pump stations located along the length of the channel. The channel empties into Coyote Creek approximately ½ mile north of the Burnett Avenue overpass at U.S. Highway 101.

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### **FLOODING POTENTIAL**

#### **100-year Flood**

According to the Flood Insurance Rate Map (FIRM) covering the project area, the project site lies within a Special Flood Hazard Area (SFHA) designated as Zone X. Lands with the Zone X designation are located outside the 100-year floodplain, but are subject to 100-year flooding with average depths less than one foot, and also include areas subject to 100-year flooding where the drainage area is less than one (1) square mile, or areas protected from the 100-year flood by levees. The nearest 100-year floodplain area is associated with Coyote Creek, located about 1,500 feet north of the project site. The floodprone lands are confined to the near-channel areas.

#### **Dam Failure Inundation**

The project site is located approximately one mile southwest of Anderson Reservoir, which is retained by an earth and rock dam, built in 1950. Owned and operated by the SCVWD, the reservoir has a water surface area of 1,271 acres and has a storage capacity of 90,373 acre-feet. Areas affected by potential inundation due to total catastrophic dam failure have been mapped by the SCVWD. (Although the SCVWD maps are not posted on their website, generalized versions of the SCVWD's inundation maps are posted on the website of the Association of Bay Area Governments (ABAG). According to ABAG's generalized version of the inundation map for the project area, a catastrophic failure of the dam would result in inundation of most of the valley floor in Morgan Hill, including the project site. Dam failure may occur suddenly, such as in the event of major earthquake, releasing thousands of acre-feet of water with the force to create major life and property losses in the area immediately downstream from the dam. Flooding can also occur due to overtopping of the dam structure during periods of intense precipitation. In addition, landslide-induced splash waves and seiches (seismically-induced oscillatory waves) within enclosed water bodies such as Anderson Reservoir may pose a danger to the impoundment structure.

Historically, dam failure has not occurred in Santa Clara County. In general, impoundments of compacted earthfill construction, such as Anderson Dam, should withstand the impact of a moderate earthquake. The SCVWD is engaged in ongoing efforts to strengthen dams and spillways in order to ensure the structural safety of its reservoirs. The SCVWD staff indicated that studies have shown that Anderson Reservoir is capable of withstanding large magnitude earthquakes and meets the seismic safety requirements of the California Division of the Safety of Dams (DSOD). Thus, while minor damage as a result of a seismic event is possible, sudden catastrophic dam failure would not be expected to occur. Most likely, the dam would only be structurally compromised and sufficient time

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would be allowed to issue warnings and evacuate areas of potential flooding until a damage assessment of the impoundment structure could be conducted.

#### WATER QUALITY

Coyote Creek is identified by the State Water Resources Control Board as not meeting applicable water quality standards for the pesticide Diazinon. Concentrations of Diazinon in Coyote Creek are higher in the southern Santa Clara County primarily due to its use in agriculture. In addition to pesticides, other pollutants in urban storm runoff which would be expected to enter Coyote Creek watershed include bacteria (animal wastes), nutrients (fertilizers, animal wastes), heavy metals (vehicles), petroleum products (vehicles), and litter.

The San Francisco Bay Water Quality Control Plan, prepared by the San Francisco Bay Regional Water Quality Control Board (Regional Board, Region 2), defines the existing and potential beneficial uses of Coyote Creek as: cold freshwater habitat, fish migration, preservation of rare and endangered species, contact and non-contact water recreation, fish spawning, warm freshwater habitat, and wildlife habitat. These beneficial uses must be protected from pollution and nuisance as a result of waste discharge, as discussed below.

#### 3.8.2 REGULATORY SETTING

##### SAN FRANCISCO BAY WATER QUALITY CONTROL PLAN ('BASIN PLAN')

The California State Water Resources Control Board (SWRCB or State Board) and the nine Regional Water Quality Control Boards (RWQCB or Regional Board) have the authority in California to protect and enhance water quality, both through their designation as the lead agencies in implementing the Section 319 non-point source program of the federal Clean Water Act, and under the state's primary water-pollution control legislation, the Porter-Cologne Act. The RWQCB Region 2 office guides and regulates water quality in streams and aquifers of the San Francisco Bay Area (which includes the Coyote Creek watershed) through designation of beneficial uses, establishment of water-quality objectives, administration of the National Pollutant Discharge Elimination System (NPDES) permit program for stormwater and construction site runoff, and Section 401 water-quality certification where development results in fill of jurisdictional wetlands or waters of the U.S. under Section 404 of the Clean Water Act.

##### NPDES MUNICIPAL STORMWATER PERMIT

The 1987 amendments to the Clean Water Act [Section 402(p)] provided for U.S. Environmental Protection Agency (U.S. EPA) regulation of several new categories of non-point pollution sources within the existing NPDES. In Phase 1, NPDES permits were issued

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for urban runoff discharges from municipalities of over 100,000 people, from plants in industries recognized by the EPA as being likely sources of stormwater pollutants, and from construction activities which disturb more than five acres. The U.S. EPA has delegated management of California's NPDES Municipal Stormwater Permit program to the State and Regional Boards. Phase 2 implementation (effective March 10, 2003) extended NPDES urban runoff discharge permitting to all Municipal Separate Storm Sewer Systems ("MS4s") not covered in Phase I, and to construction sites that disturb between one and five acres.

On March 23, 2005, the City of Morgan Hill received notification from the Central Coast RWQCB (Region 3) that its Storm Water Management Plan (SWMP) is in compliance with the NPDES General Permit for MS4s. However, since the northern portion of Morgan Hill, including the project site, drains north to Coyote Creek and San Francisco Bay, it lies within the jurisdictional area of the San Francisco Bay RWQCB (Region 2). As such, the project may be subject to the Santa Clara Valley Urban Runoff Pollution Prevention Program's (SCVURPPP) NPDES Permit for stormwater discharges to South San Francisco Bay and its tributaries. The SCVURPPP is an association of thirteen cities and towns in the Santa Clara Valley, together with Santa Clara County and the SCVWD. Program participants share a common NPDES permit issued by the San Francisco Bay RWQCB to discharge stormwater to South San Francisco Bay and its tributaries. Although the City of Morgan Hill is not a member of SCVURPPP, the proposed project will require a permit to outfall to Cochrane Channel and Coyote Creek, both of which are SCVWD facilities. Therefore, the project may be held to the provisions contained in the NPDES discharge permit issued by Region 2 to the 13 SCVURPPP participants.

In October 2001, the San Francisco Bay RWQCB amended Provision C.3 of the NPDES permit to promote improved treatment of runoff from new development and significant redevelopment projects by requiring numeric criteria for flow- and volume-based treatment control measures to limit pollutant discharges, consistent with requirements imposed in other jurisdictions throughout the state. As discussed above, the proposed project may be held to the provisions of the SCVURPPP NPDES discharge permit, including its C.3 Provisions. The NPDES Phase 2 Permit requires that stormwater runoff from a development site be treated to the Maximum Extent Practicable (MEP). Section C.3 of the Phase 2 NPDES Permit requires that permittees implement (Best Management Practices (BMPs) that reduce pollutants in storm water to the technology-based standard of MEP. The MEP of treatment is considered to be achieved with capture and infiltration of the 85th percentile annual runoff volume from the development area.

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#### **NPDES General Permit for Discharges of Storm Water Associated with Construction Activity**

Since the proposed project would disturb more than one acre of land, the proposed project will be subject to the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity. Administration of these permits has not been delegated to cities, counties, or Regional Boards but remains with the State Board. Enforcement of permit conditions, however, is the responsibility of Regional Board staff, assisted by local municipal or county staff. Prior to construction grading for the project, the applicant will be required to file a "Notice of Intent" (NOI) with the State Board to comply with the General Permit, and to prepare a Storm Water Pollution Prevention Plan (SWPPP) which addresses measures to be included in the proposed project to minimize and control construction and post-construction runoff. The SWPPP details the site-specific BMPs to control erosion and sedimentation and maintain water quality during the construction phase. The SWPPP is to be kept on-site during construction, and is to be updated each year as site development proceeds.

#### **CITY OF MORGAN HILL GENERAL PLAN**

The following *City of Morgan Hill General Plan* goal and policies on hydrology and water quality are relevant to the proposed project:

#### **Public Health and Safety Element**

- Goal 4**      The least possible damage to persons and property from flooding.
- Policy 4a**      Prepare for impacts associated with potential failure of Anderson Dam.
- Policy 4k**      Require developers whose proposed projects would induce downstream flooding to provide mitigation to eliminate the flood-inducing impacts of their projects.
- Policy 4l**      If development is to be allowed in flood-prone areas, provide flood control facilities or appropriate flood-proofing prior to or in conjunction with development at the developers' expense.
- Policy 4m**      Where other mitigation measures do not solve the flooding problem, permit raising individual foundations (padding up structures) in appropriate situations;

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however, its use must be restricted in order to minimize the cumulative effect on adjacent areas.

**Policy 4n** Require mitigation of any storm water runoff produced by development that occurs beyond that described in the General Plans of the City and County as of 1982.

**Policy 4o** Require all local development to provide appropriate mitigation of off-site flooding impacts, including limiting runoff to pre-development levels and/or complete solutions to flooding and local drainage problems in the vicinity of the development, using such methods as detention and retention.

**Action 4.7** Establish an early warning protocol to alert persons within the dam failure inundation zone.

#### 3.8.3 IMPACTS AND MITIGATION MEASURES

##### STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and standards used by the City of Morgan Hill. For purposes of this EIR, the hydrology and water quality impacts associated with the proposed project are considered to be significant if the following would result from implementation of the proposed project:

- Substantially alter the existing drainage pattern of the site area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site;
- Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- Place housing within a 100-year flood hazard area as mapped on a federal flood hazard boundary or flood insurance rate map or other flood hazard delineation map;
- Place within a 100-year flood hazard area structures, which would impede or redirect flood flows;

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- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; and/or
- Be subject to inundation by seiche, tsunami, or mudflow.

#### METHODOLOGY

The following impact evaluation is largely based on the hydrology technical report prepared by Schaaf & Wheeler, which is contained in Appendix H of this EIR. The hydrology report includes detailed analyses of potential project impacts associated with increased stormwater runoff, potential flooding, potential inundation due to the failure of Anderson Dam, and degradation of surface water quality during and after project construction. The analysis and conclusions are supported by detailed engineering calculations, as is the adequacy of proposed structural mitigations. The technical analysis and discussion contained in the hydrology technical report are summarized below in a fashion that is responsive to CEQA requirements for the identification of significant impacts and feasible mitigation measures, in language which is succinct and comprehensible to the lay reader.

#### IMPACTS AND MITIGATION MEASURES

##### Increased Stormwater Runoff

**Impact 3.8-1** The proposed project would result in a substantial increase in stormwater runoff generated at the project site compared to existing conditions; however, the project includes detention ponds which have been designed to provide temporary storage of increased runoff in order to prevent increased flooding downstream. This is considered a **less than significant impact**.

The proposed project would result in the coverage of approximately 80 percent of the project site with impervious surfaces, and would result in a corresponding loss of on-site infiltration. Therefore, the volume and velocity of peak runoff leaving the project site would increase substantially with implementation of the proposed project. According to calculations by Schaaf & Wheeler, peak runoff rates for the two-year event would increase from 5.9 cubic feet per second (cfs) under current conditions to 43.3 cfs under project conditions, an increase of about 634 percent. Peak flow rates for the 10-year design storm would increase 647 percent, from 9.3 cfs to 69.5 cfs. Peak runoff rates for the 25-year event would increase from 10.9 cfs under current conditions to 82.0 cfs under project conditions, an increase of about 652 percent. Peak flow rates for the 100-year design storm would increase 656 percent, from 13.2 cfs to 99.8 cfs. (For detailed runoff calculations, see Schaaf & Wheeler's hydrology report contained in Appendix H.)

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Under project conditions, site drainage will be directed to catch basins located throughout the project site and will be conveyed via underground storm drain pipes to two stormwater detention ponds planned along the northern project boundary. The storm drain system design will incorporate City standards for pipe size, maximum and minimum slopes, minimum flow velocities, and pipe material, among other things. The detention basins shall satisfy the SCVWD requirements and the City's detention design criteria, which is estimated to require a total detention capacity of 21.4 acre-feet for the proposed project. The larger detention pond planned for the project will have a storage capacity of 18.1 acre-feet, and the smaller pond has a planned capacity of 3.9 acre feet. Both ponds will be 13 feet deep and will have turfed sideslopes with gradients of 2:1 (horizontal: vertical). The planned storage capacity of 22.0 acre-feet will satisfy the requirement for 21.4 acre-feet of detention storage under the City's design criteria. (See the hydrology report in Appendix H for details on City's design criteria and a summary of the pond volume calculations.)

The stormwater to be temporarily stored in the planned detention ponds will be pumped to the adjacent Cochrane Channel at discharge rates which are at or below pre-development levels, as required by the SCVWD. No mitigation measure is required.

#### Flooding

**Impact 3.8-2** During the 100-year storm event, the project site may be subject to shallow flooding to depths of less than one foot; however, all finished floors will be on raised pads at least one foot above existing ground elevations to prevent flooding of the project buildings. This considered a **less than significant impact**.

To facilitate positive site drainage, the building pads will be raised to one foot above existing ground elevations, with grades sloping away from the building pads toward storm drain inlets in the parking areas. The elevated building pads will provide flood protection from shallow flooding, which may occur on the site during the 100-year event.

During large storms such as the 100-year event, stormwater will back up at the storm drain inlets and be allowed to pond in the project parking areas. Final grades will be designed such that the resulting ponding depths will be less than one foot. In order to facilitate the conveyance of excess flood volumes from the project site, the proposed project will include overland release points to the north and northwest to direct surface flows toward Cochrane Channel. Incorporation of these features as part of the project design, as proposed, would ensure that the proposed project would have a **less than significant impact** on flooding. No mitigation is required.



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#### Dam Failure Inundation

**Impact 3.8-3** Since the project site is located within the dam failure inundation area for Anderson Reservoir, development of the proposed project would increase the number of people and structures exposed to dam failure risk and the potential for associated loss of life and property. This is considered a **significant impact**.

As discussed above, studies have shown that Anderson Dam is capable of withstanding a large magnitude seismic event to the satisfaction of the California Division of Safety of Dams. Thus, the risk of total catastrophic dam failure is low; however, there remains the potential for the containment dam to be structurally compromised resulting in a leak, which could result in downstream flooding. This could pose a public safety hazard to people who are at the project site during and immediately following such an event. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

#### Mitigation Measure

**MM 3.8-1** Prior to occupancy of the structures, the project applicant shall prepare an emergency evacuation plan for the proposed project. The emergency evacuation plan procedures shall be developed jointly with the project owner, City public safety staff, and potential tenants/users to identify appropriate emergency procedures in order to ensure the efficient and safe evacuation of employees and customers.

The emergency evacuation plan would also be beneficial in the event of a major seismic event, which results in structural damage and potential safety hazards at the project.

In this context, it should be noted that the City General Plan Action Item 4.7 (“Establish an early warning protocol to alert persons within the dam failure inundation zone”) is in the early stages of implementation. According to Morgan Hill Police Department staff, the City is working with the County of Santa Clara to formulate an emergency notification and public information procedure to be followed in the event of major public emergencies. Such a system may consist of a series of sirens, which would provide public alert, with evacuation instructions and updates to be provided on the radio and local cable TV. In the meantime, the City’s normal emergency procedures would apply, i.e., depending on the nature of the dam breach, the Police Department would coordinate with the SCVWD to identify which areas to notify and evacuate.

#### Construction-Related Impacts to Water Quality

**Impact 3.8-4** During grading and construction, erosion of exposed soils and pollutants generated by site development activities may result in water quality

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impacts to downstream water bodies. This is considered a **potentially significant impact**.

Development of the proposed project would involve site clearing, mass grading, excavation, trenching, and final grading for roads, utilities, and building pads. Once vegetation is removed at the project site, the exposed and disturbed soil would be susceptible to high rates of erosion from wind and rain, resulting in sediment transport from the project site. Sediment impact on water quality includes interference with photosynthesis, oxygen exchange, and respiration, growth, and reproduction of aquatic species. After the proposed project has been constructed and the landscaping has been installed, the erosion potential would be minimal.

Delivery, handling and storage of construction materials and wastes, as well as use of construction equipment on-site during the construction phase of the project, will introduce a risk for stormwater contamination, which could impact water quality. Spills or leaks from heavy equipment and machinery can result in oil and grease contamination of stormwater. Some hydrocarbon compound pollution associated with oil and grease can be toxic to aquatic organisms at low concentrations. Staging areas, or building sites can be the source of pollution due to paints, solvents, cleaning agents, and metals contained in the surface of equipment and materials. The impacts associated with metal pollution of stormwater include toxicity to aquatic organisms, bioaccumulation of metals in aquatic animals, and potential contamination of drinking supplies. Pesticide use (including herbicides, fungicides, and rodenticides) associated with site preparation work is another potential source of stormwater contamination. Pesticide impact to water quality includes toxicity to aquatic species and bioaccumulation in larger species through the food chain. Gross pollutants such as trash, debris, and organic matter are additional potential pollutants associated with the construction phase of the project. Potential impacts include health hazards and aquatic ecosystem damage associated with bacteria, viruses and vectors, which can be harbored by pollutants. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

#### Mitigation Measure

**MM 3.8-2** The project applicant shall prepare a comprehensive erosion control and water pollution prevention program, subject to review and approval by the City of Morgan Hill Public Works Department. This erosion and water pollution prevention program shall be implemented during grading and construction activities at the project site.

The proposed project will require a Storm Water Pollution Prevention Plan (SWPPP), in accordance with the NPDES Construction Activities general permit. The SWPPP will detail the treatment measures and best management practices (BMPs) to control pollutants that

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would be implemented during the construction and post-construction phases of project development. As part of the SWPPP, an Erosion and Sedimentation Control Plan shall be prepared for the proposed project prior to grading. The erosion and sediment control plan shall demonstrate how the proposed project would effectively minimize soil erosion and sedimentation from the project site and must also provide for the control of runoff from the site. The erosion control plan for the project might include such components as: designation of restricted-entry zones, sediment tracking control practices, diversion of runoff away from disturbed areas, protective measures for sensitive areas, outlet protection, and provision for revegetation or mulching for soil stabilization. The plan would also prescribe treatment measures to trap sediment once it has been mobilized, at a scale and density appropriate to the size and slope of the catchment. These measures typically include: inlet protection, straw bale barriers, straw mulching, straw wattles, silt fencing, check dams, terracing, and siltation or sediment ponds.

In addition to the erosion and sediment-control measures, the SWPPP shall include construction-phase housekeeping measures for control of contaminants such as petroleum products, paints and solvents, detergents, fertilizers, and pesticides, as well as vehicle and equipment fueling and maintenance practices, and waste management and disposal control practices, among other things. The SWPPP will also set forth the BMP monitoring and maintenance schedule and responsible entities during the construction and post-construction phases.

#### Urban Non-point Source Pollution

**Impact 3.8-5** The proposed project would generate urban non-point contaminants, which may be carried in stormwater runoff from paved surfaces to downstream water bodies. This is considered a **significant impact**.

Once the project buildings and parking lots have been constructed and the landscaping is installed, typical urban runoff contaminants would include: petroleum products, heavy metals, and sediments from vehicles; pesticides, fertilizers and plant debris from landscaped areas; and litter. These pollutants would be flushed by storm runoff into the storm drainage system and ultimately to Coyote Creek and San Francisco Bay where they would contribute to cumulative non-point contaminant loads and result in incremental deterioration of water quality. Excess nutrients from fertilizers can affect water quality by promoting excessive and/or rapid growth of aquatic vegetation reducing water clarity, and causing oxygen depletion. Pesticides also may enter into stormwater after application on landscaping areas of the project. Pesticides impact water quality because they are toxic to aquatic organisms and can bioaccumulate in larger species such as birds and fish. Implementation of the following mitigation measure would reduce this significant impact to a **less than significant level**.

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#### Mitigation Measure

**MM 3.8-3** The proposed project shall include structural and non-structural stormwater controls, in order to reduce non-point source pollutant loads.

Specifically, the detention ponds planned at the northern end of the project site to temporarily store post-development runoff shall be designed to provide water quality treatment through settling of sediments prior to the discharge of the stormwater to Cochrane Channel. These dual-purpose ponds will provide both stormwater detention and water quality treatment, to a sufficient level to comply with the amended Provision C.3 of the SCVURPPP NPDES Phase 2 Permit requirements, if those requirements are deemed to be applicable to the proposed project (see Section 3.8.2 Regulatory Setting, above, for a full discussion)..

Additional post-construction Best Management Practices (BMPs) to be implemented will include, but not be limited to the following:

- Impervious surfaces such as roads, parking lots, and driveways shall be routinely cleaned during both the “wet” and “dry” seasons to limit the accumulation of “first flush” contaminants;
- Features such as detention ponds shall be utilized to capture pollutants before the stormwater runoff enters the storm drainage system;
- Engineered products, such as storm drain inlet filters, oil/water separators, etc., shall be utilized to capture pollutants before the stormwater runoff enters the storm drainage system;
- The developer shall distribute educational materials to the first tenants of properties included in the project development. These materials shall address good housekeeping practices relating to stormwater quality, prohibited discharges, and proper disposal of hazardous materials;
- Common landscaped areas shall be subject to a program of efficient irrigation and proper maintenance including minimizing use of fertilizer, herbicides and pesticides;
- The project tenants and users shall implement a trash management and litter control program to mitigate the impacts of gross pollutants

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on storm water quality. This program shall include litter patrol, emptying trash receptacles in common areas, and reporting and investigating trash disposal violations;

- Storm drain inlets shall be labeled with the phrase “No dumping – flows to Bay,” or a similar phrase to mitigate the impact of potential for discharges of pollutants to the storm drain system;
- Restaurants within the development shall be designed to include contained areas for cleaning mats, containers and sinks connected to the sanitary sewers. Grease shall be collected and stored in a contained area and shall be removed regularly by a disposal recycling service. To this end, sinks shall be equipped with grease traps to provide for its collection.

The portion of the project SWPPP that addresses post-construction practices shall itemize these and any additional pollution control measures required for the proposed project.

#### CUMULATIVE IMPACTS AND MITIGATION MEASURES

##### Cumulative Surface Runoff and Contamination

**Impact 3.8-6** New development, combined with other reasonably foreseeable projects in the City of Morgan Hill, would contribute to increased surface runoff and greater runoff contamination in an area that historically was used for agriculture. This cumulative impact is considered **less than significant**.

Ultimate development of the project site would contribute to cumulative drainage flows and surface water quality impacts when combined with other growth and development. However, the City of Morgan Hill requires that all new projects follow the City’s detention design criteria, which requires all new developments to design and construct facilities such as stormwater detention basins adequate to limit flow to pre-development levels, and best management practices for control of surface water contaminants (see MM 3.8-5) The application of these standards and practices at each development site would result in minimization of the combined impact. Therefore, the cumulative storm water runoff and contamination impact is considered **less than significant**.

#### REFERENCES/DOCUMENTATION

Association of Bay Area Governments (ABAG). *Dam Failure Inundation Map for Morgan Hill*. Retrieved January 13, 2005 from [http://gis.abag.ca.gov/website/dam\\_inundation/mapFrame.htm](http://gis.abag.ca.gov/website/dam_inundation/mapFrame.htm).

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Morgan Hill, City of. *Morgan Hill General Plan*. July 25, 2001 (Updated July 2004).

Morgan Hill, City of. *Morgan Hill General Plan, Draft Master Environmental Impact Report*. March 22, 2001.

Santa Clara, County of. *Santa Clara County General Plan*. Adopted December 20, 1994.

Santa Clara, County of. *Santa Clara County General Plan – Draft Environmental Impact Report*. September 1994.

Santa Clara Valley Urban Runoff Pollution Prevention Program. *About SCVURPPP*. Retrieved February 25, 2005 from <http://www.scvurppp-w2k.com/aboutscvurppp.htm>.

Schaaf & Wheeler. *NEC Hwy. 101 & Cochrane Road – Hydrology Report*. May 2005.

Twining Laboratories, Inc. *Phase I Environmental Site Assessment, Northeast of Interstate 101 and Cochrane Road, Morgan Hill, Santa Clara County, California*. June 2004.

Twining Laboratories, Inc. *Preliminary Geotechnical Investigation, Proposed Retail Shopping Center, Northeast Corner of State Highway 101 and Cochrane Road, Morgan Hill, California*. November 1, 2004.

Twining Laboratories, Inc. *Results of Phase II Assessment at Site Located Northeast of the Intersection of Interstate 101 and Cochrane Road, Morgan Hill, California*. February 2005.